5-25kV Transition Splices

Prysmian
MV ACCESSORIES

DESCRIPTION

Prysmian Transition Splices are designed to give the reliability required when splicing three or single conductor paper lead cable (PILC) to three or one solid dielectric polymeric cables. The major cold shrink components of the splice kits are manufactured from specialty formulated EPR materials. These components when installed, shrink uniformly to create a joint that not only can withstand high electrical stress, but also performs well against high physical stresses caused by internal oil pressure and external water pressure. Additionally, the trifurcating break out boot and splice jackets exhibit excellent resistance to abrasion. Prysmian Transition Splice meets or exceeds IEEE 404 and covers voltages from 5kV to 28kV. Connectors can be supplied in the kit as required. Nospecial tools or torches are required.

SPECIFICATIONS AND RATINGS

IEEE: IEEE 404

OPTIONS:

- Alternative shield/neutral connection systems (constant force spring, LC connector, etc.)
- Jacketed splice
- #2/0 AWG shielding braid
- Copper and transition connectors (aluminum is standard)

DESIGN FEATURES

OIL BARRIER INSTALLATION

Each Transition Splice Kit comes with an Oil Barrier Kit suitable for either three or one conductor applications. The Oil Barrier Kit comes with all the oil resistant components needed to ensure that the oil from the paper lead cable (PILC) cable does not damage the splice.

WATERTIGHT INSTALLATION

Major accessory users are concerned that ingress of water in damaged cable jackets and unsealed splices can lead to premature failures. The Elaspeed splice has successfully passed IEEE 404-1993, the industry standard for splices. The Elaspeed splice also passes pressure tests at an external pressure of 45 psi. Internal mastic seals ensure that even cable jacket damage will not allow water to enter the splice area.

SMALL PROFILE

Elaspeed™ Splices behave like EPR cable when it comes to bending in tight manhole situations. Splices can be bent to the same radius as the cable on which it is applied. This small profile consumes less racking space as well.

RANGE-TAKING CAPABILITY

The splice can easily accommodate different types of insulation (EPR to XLPE), different insulation thicknesses (175 mil to 220 mil, or 260 mil to 345 mil), as well as different conductor sizes and metals.

WHY USE ELASPEED™ SPLICES?

TESTING

All Splices are pre-tested as cable to ensure that the splice will maintain the integrity of the electrical system. The Elaspeed™ EPR insulation system provides the highest dielectric strength over the full voltage range as well as the highest BIL available from any splice technology.

SAFETY

Splices utilize cold shrink technology, which requires no open flames, eliminating the problems associated with handling and transporting gas bottles..

RELIABILITY AND REPEATABILITY

Splices are reliable because they always shrink uniformly, and there is only one part to shrink – the triple-extruded body. Tight manhole spaces can create difficulty in assuring that the multiple layers of heat shrink splices receive adequate heating over the entire cable radius. No matter how many splices must be installed, the last splice will be as reliable as the first. The physical effort associated with push-on and tape splices is eliminated with the simple cold shrink technique.

ROBUST OIL BARRIER

The kit comes with robust oil barrier components designed to keep the oil in the paper lead cable (PILC) and protect the splice.

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Product Number	PILC Cable Range	1/C Solid Dielectric Cable Range	Al/Cu Shear Bolt	Minimum Insulation Diameter	Maximum Insulation Diameter	Maximum Jacket Diameter
3/C 15kV Splices						
15-E-T3	1/0 AWG - 4/0 AWG	1/0 AWG - 250 kcmil	2-250-ALSB	0.75"	1.26"	1.496"
15-F-T3	4/0 AWG - 500 kcmil	4/0 AWG - 600 kcmil	1/0-500-ALSB	0.91"	1.42"	1.969"
15-IP-T3	500 kcmil - 750 kcmil	350 kcmil - 750 kcmil	350-750-ALSB	1.09"	1.77"	2.244"
3/C 25kV Splices						
25-E-T3	#1 AWG - 1/0 AWG	#1 AWG - 2/0 AWG	2-250-ALSB	0.75"	1.26"	1.496"
25-H-T3	4/0 AWG - 350 kcmil	4/0 AWG - 500 kcmil	1/0-500-ALSB	0.91"	1.42"	1.969"
25-IP-T3	350 kcmil - 750 kcmil	250 kcmil - 750 kcmil	350-750-ALSB	1.09"	1.77"	2.244"
25-I-T3	750 kcmil - 1000 kcmil	350 kcmil - 1000 kcmil	500-1000-ALSB	1.26"	2.20"	2.638"
1/C 15kV Splices						
15-E-T1	1/0 AWG - 4/0 AWG	1/0 AWG - 250 kcmil	2-250-ALSB	0.75"	1.26"	1.496"
15-F-T1	4/0 AWG - 500 kcmil	4/0 AWG - 600 kcmil	1/0-500-ALSB	0.91"	1.42"	1.969"
15-IP-T1	500 kcmil - 750 kcmil	350 kcmil - 750 kcmil	350-750-ALSB	1.09"	1.77"	2.244"
1/C 25kV Splices						
25-E-T1	#1 AWG - 1/0 AWG	#1 AWG - 2/0 AWG	2-250-ALSB	0.75"	1.26"	1.496"
25-H-T1	4/0 AWG - 350 kcmil	4/0 AWG - 500 kcmil	1/0-500-ALSB	0.91"	1.42"	1.969"
25-IP-T1	350 kcmil - 750 kcmil	250 kcmil - 750 kcmil	350-750-ALSB	1.09"	1.77"	2.244"
25-I-T1	750 kcmil - 1000 kcmil	350 kcmil - 1000 kcmil	500-1000-ALSB	1.26"	2.20"	2.638"

Splice Part Number Designation

The “15” in the splice part number indicates the rated voltage for the splice. Note that the 15kV splices are used for 5kV and 8kV. This splice will simply provide more protection for the respective voltage classes.

The “25” in the splice part number indicates the rated voltage for the splice. Note that the 25kV splices can be used up to 28kV.

The “E”, “F”, “H”, “IP”, “I” in the splice part number denotes the size parameter of the splice.

The “T1” or “T3” in the part number denotes the number of conductors on the paper lead cable (PILC). The “T1” is for a single conductor and the “T3” is for three conductors.

Splice Selection and Ordering

The sizes shown are based on industry standard 100% cable installation levels. Because of the variables covering many PILC cables, please contact Prysmian with cable details before making a final kit selection.

When checking the Insulation Diameter on the PILC Cable side, make note that the Oil Barrier Tube adds about 0.185" to the insulation diameter.

When sizing the kit based on the Maximum Jacket Diameter, compare it to the Solid Dielectric Cable as the splice will need to be able to slide over the jacket prior to installation.

Conductor connectors can be supplied in the splice kits for copper, aluminum and transition sizes. To indicate the size of the connector to be included in the kit, add the following for Class B compressed stranding:

- For a Class B compact conductor or a solid conductor add "-C" or "-S", respectively.
- To indicate the conductor metal for the connector add "-CU" or "-AL" for copper & aluminum, respectively.

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